

DynaMetric, Inc.

PASADENA, CALIF.

DBR-115-2

11 June 62

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Type III Unit Test Program

Vibration Tests in Mock Up

1. Object

- 1.1 Measure induced vibration at various points on Type III Unit and search for resonance points in structure under simulated in-flight vibration conditions.
- 1.2 Determine isolating efficiency of mounts of type III unit.
- 1.3 Confirm mounting compatability of type III unit and vehicle attach points.

2. Equipment

- 2.1 Type III Unit.
- 2.2 Vehicle attach fittings and isolators of type III unit.
- 2.3 Ground support equipment, hand tools and spares for type III unit.
- 2.4 Vibration monitoring instruments (customer furnished).
- 2.5 Mock up of vehicle mounting points. (customer furnished)

3. Tasks

- 3.1 Prepare test program and data sheets. 25 YEAR RE-REVIEW
- 3.2 Ship equipment to area, install sensors.
- 3.3 Adjust and calibrate test equipment.
- 3.4 Conduct vibration tests, first series
 - a. Make frequency amplitude sweep with force generators in phase, unit not operating.
 - b. Explore for resonances with manual probe.
 - c. Make recording runs with thru-frequency sweep, unit operating and not operating.
 - d. Same as above but with force generators out of phase.

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3.5 Analyze data, correct resonances.

3.6 Conduct vibration tests, second series

- a. Make frequency amplitude sweep with force generators in phase, unit not operating.
- b. Explore for resonances with manual probe.
- c. Make recording runs with thru-frequency sweep, unit operating and not operating.
- d. Same as above but with force generators out of phase.

3.7 Analyze data and report findings.